

September 12, 2022

*Submitted via [www.regulations.gov/docket?D=MARAD-2019-0011](http://www.regulations.gov/docket?D=MARAD-2019-0011)*

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**Re: Comments on SPOT Terminal, LLC, National Environmental Policy Act Final Environmental Impact Statement, Docket No. MARAD-2019-0011**

Dear Ms. Fields and Mr. Layman:

The undersigned groups submit the following comments to the Maritime Administration ("MARAD") and the U.S. Coast Guard ("USCG") on the Final Environmental Impact Statement ("Final EIS" or "FEIS") for SPOT Terminal Services LLC's ("SPOT Terminal" or "SPOT") deepwater port ("DWP") license application for its Sea Port Oil Terminal DWP Project ("SPOT Project" or "Project"), Docket No. MARAD-2019-0011. Many of the undersigned groups also submitted to MARAD and the USCG comments on the Draft EIS on March 23, 2020 (the "March DEIS Comment Letter"), a follow-up supplemental comment letter on June 1, 2020 (the "June 2020 Supplemental Comment Letter"), and comments on the Supplemental Draft EIS (the "December 2021 SDEIS Comment Letter").<sup>1</sup> The comment letters raise several flaws and omissions in MARAD and the USCG's National Environmental Policy Act ("NEPA") review of the SPOT Project.

We reiterate and continue to assert the objections we raised in these previous letters, because the FEIS fails to adequately address them. We therefore incorporate by reference all our

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<sup>1</sup> Many of the undersigned groups also submitted comments on March 20, 2020, to the U.S. Army Corps of Engineers on the SPOT Project's Clean Water Act Section 404 and Rivers and Harbors Act Section 10 permit applications, No. SWG-2018-00751. Those comments are attached here as **Exhibit A**, and are considered incorporated herein.

previous comments on the Draft EIS and Supplemental Draft EIS and all literature cited therein. Those comments include objections to the EIS's failure to:

- Identify a proper purpose and need,
- Fully consider the no-action alternative or reasonable alternatives,
- Consider a reasonable range of alternatives,
- Analyze the impacts of its alternatives,
- Identify a preferred alternative,
- Take a hard look at SPOT's compliance history,
- Adequately evaluate oil spill risk,
- Take a hard look at environmental impacts from oil spills to wildlife and habitat,
- Adequately evaluate impacts on sensitive habitats,
- Adequately evaluate the full scope of the Project's climate change impacts,
- Analyze impacts from induced production and downstream greenhouse gas emissions,
- Adequately evaluate air pollution emission impacts,
- Take a hard look at cumulative impacts of this and other existing and proposed projects,
- Adequately consider the impacts from this Project on environmental justice communities,
- Adequately evaluate impacts on endangered and threatened species and include proper mitigation from risks like ship strikes and noise pollution, and
- Abide by the goals and mandates of the Deepwater Port Act ("DWPA") to approve projects in the national interest and to ensure environmental quality.

Moreover, the FEIS contains several other failures and omissions that we discuss below. We also cite additional, more recent evidence that supports our concerns. Overall, the FEIS fails to provide critical information and analyses necessary to complete NEPA's environmental impact review and the DWPA's national interest and financial assurance determinations. Significant information, documents, data, and analyses remain missing from the FEIS that are essential to the agencies' and public's review of the proposed SPOT Project. We ask that MARAD and the USCG conduct the additional NEPA review required to address the deficiencies in the FEIS, before they issue a record of decision. MARAD cannot validly approve a license based on the existing record.

Critically, the national interest in securing a clean energy future, the urgent need to meaningfully address the climate crisis and lift up and protect frontline communities of color all weigh heavily against licensing the SPOT project. The project will lock in decades of fossil fuel dependence and infrastructure and pollute Gulf communities already at the frontlines of climate disaster, directly undermining this Administration's commitments to climate mitigation and environmental justice. MARAD must deny the SPOT Project.

**I. MARAD and the USCG improperly dismiss the no-action and smaller project alternatives, despite ample evidence of limited need for the Project.**

The FEIS dismisses the no-action alternative and the alternative of building a smaller-capacity project, even in the face of economic forecasts showing that global demand for SPOT's oil will enter into a long-term decline precisely when this unprecedentedly large VLCC export terminal would come online.<sup>2</sup> Specifically, the agencies must correct two erroneous assumptions in the FEIS. First, the FEIS inappropriately assumes there will be global demand for all of SPOT's oil-export capacity until approximately 2050.<sup>3</sup> It then assumes that, even if the agencies deny SPOT's license, the same volume of oil could be reverse-lightered onto VLCCs and exported, causing the same or worse environmental harm. Both assumptions are flawed, as recent data underscores.

On the first issue, a long-term decline in oil demand is inevitable if the world is to avoid or mitigate cataclysmic climate change, and if the United States is to fulfill its national climate policy.<sup>4</sup> Meanwhile, the United States already has an abundance of onshore oil export terminals along the Gulf coast to handle its current export volumes, let alone to serve a shrinking future global market.<sup>5</sup> Since our SDEIS comments, McKinsey and Company released its Global Energy Perspectives report for 2022 that adds to the mounting pile of data undermining the need for SPOT's Project.<sup>6</sup> McKinsey concludes that in all planning scenarios, "[p]eak oil demand is projected to occur between 2024 and 2027, driven largely by EV [electric vehicle] uptake—a development that is already underway."<sup>7</sup> McKinsey forecasts that "[c]rude oil demand is expected to decline rapidly after 2030."<sup>8</sup> Demand for oil for road vehicles, presumably the primary end-use for SPOT's crude oil,<sup>9</sup> would drop "75% by 2050 after peaking in the early 2020s, driven by slowing growth in the number of cars on the road, increased efficiency, and accelerating uptake of electric vehicles (EVs), with bio- and synfuels decreasing demand for

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<sup>2</sup> FEIS at 2-62 to 2-68.

<sup>3</sup> *Id.* at 2-63.

<sup>4</sup> *See, e.g.*, FEIS at 1-10 to 1-11, 3-347, 5-53.

<sup>5</sup> *See* FEIS at 1-11, 5-20, FEIS at 1-11; Amanda Drane, *A pipeline at Surfside Beach? Residents wants to stop project*, Houston Chronicle (Aug. 23, 2022), <https://www.houstonchronicle.com/business/energy/article/An-offshore-oil-terminal-would-put-a-pipeline-17390727.php> (quoting Rystad Energy and S&P Global analysts that echoes FEIS's data showing U.S. still has more existing oil export capacity than is necessary to meet current demand), attached as **Exhibit B**

<sup>6</sup> McKinsey & Co., *Global Energy Perspective 2022*, Public Exec. Summ. (Apr. 2022), <https://www.mckinsey.com/~/media/McKinsey/Industries/Oil%20and%20Gas/Our%20Insights/Global%20Energy%20Perspective%202022/Global-Energy-Perspective-2022-Executive-Summary.pdf>, attached as **Exhibit C** [hereinafter: "McKinsey Report"].

<sup>7</sup> *Id.* at 6 (emphasis added).

<sup>8</sup> *Id.* at 13.

<sup>9</sup> *Cf.* FEIS at 5-55 to 5-56 (calculating SPOT's downstream greenhouse gas emissions based on assumption of refining the crude oil into gasoline or diesel and combusting it).

crude oil further.”<sup>10</sup> Yet SPOT wishes to start operation in late-2024, precisely as the oil market is entering into this structural decline.<sup>11</sup>

The demand for oil will only drop more sharply if global actors build on momentum to align their climate targets with what is necessary to avoid triggering catastrophic climate impacts. McKinsey notes that 64 countries—representing 89 percent of global greenhouse gas emissions—now have pledged or legislated commitments to achieve net-zero greenhouse gas emissions by 2050.<sup>12</sup> Remarkably, nearly all of these commitments date to 2019 or later,<sup>13</sup> after SPOT submitted its deepwater port application relying on claims of record U.S. oil production that must be exported.

Figure 1. Global Net-Zero Commitments.<sup>14</sup>



Relatedly, since 2018, McKinsey has shifted its estimated peak oil demand date earlier by more than a decade.<sup>15</sup> In other words, the McKinsey report is yet further evidence that the future demand for SPOT’s 730-million-barrel-per year export proposal will be much weaker than SPOT could have credibly asserted when it filed its deepwater port license application. The agencies must account for this change, by realistically considering the no-action alternative and the alternative of a smaller project in a reduced oil market.

Climate and the energy transition are not the only headwinds to oil demand and production to meet SPOT’s ambition. Adding to those issues are inflation, volatility in the price of oil, and the imperative that U.S. shale oil companies first pay down their debts and deliver

<sup>10</sup> McKinsey Report at 13, *supra* note 6.

<sup>11</sup> *Id.* at 6.

<sup>12</sup> *Id.*

<sup>13</sup> See McKinsey, *Global Energy Perspective 2022 Report Summary*, <https://www.mckinsey.com/industries/oil-and-gas/our-insights/global-energy-perspective-2022>.

<sup>14</sup> *Id.*

<sup>15</sup> See *id.* (“Every year we’ve published this report, peak oil demand has moved closer . . . from 2037 projected in 2018, to the latest projections when it peaks in 2025. . . . It is projected to occur not only earlier but also at a lower demand level.”).

greater investment returns, all of which could prevent the U.S. oil industry from raising production to the record levels the FEIS assumes, even in the near term.<sup>16</sup> According to S&P Global oil analyst, Jim Burkhard, in the coming years, these factors combined could double the cost of capital to fund new oil projects.<sup>17</sup> But the agencies fail to reflect these realities in the FEIS, which would require seriously examining the environmental benefits of denying the license or slimming the scale of the project.

On the last issue of reverse-lightering, the FEIS continues to assert that if SPOT were not built, every bit of SPOT's 730-million-barrel-per-year capacity would still be exported by VLCCs through reverse-lightering.<sup>18</sup> The FEIS holds onto this pretense, even though reverse-lightering such a large quantity of oil would be a herculean, infeasible endeavor. As the Houston Chronicle reported in a recent article on SPOT, reverse-lightering is "an expensive process that can take as long as 10 days," and costs twice as much as loading oil onto VLCCs directly.<sup>19</sup> At some point, global oil purchasers would refuse to pay these additional costs and curtail their consumption. And the FEIS provides no evidence whatsoever that Gulf coast ports could handle the sheer volume of ship traffic necessary for so much reverse-lightering, even if there were willing buyers. The FEIS's unlikely assumption of parity between the oil volumes exported in the action and no-action scenarios skews the analysis, allowing the document misleadingly to predict equal or greater environmental harm from the no-action alternative.<sup>20</sup> It is far more likely that if the agencies deny SPOT a license, reverse-lightering in the region would decrease sharply over the long-term in tandem with falling global oil demand and U.S. export volumes. The agencies must honestly present the environmental benefits that would accrue from that baseline, no-action scenario.

## **II. The FEIS uses outdated information to improperly dismiss the alternative of using a vapor recovery unit (VRU) to control SPOT's air emissions from loading.**

The FEIS must consider new information indicating that SPOT could use a vapor recovery unit (VRU) to capture 99.9 percent of its tremendous offshore loading air pollution, a system that could be more effective at capturing pollution than SPOT's own proposal. MARAD and the USCG already are in possession of this information from another deepwater port licensing docket. Instead, the FEIS does not update its decision to affirm SPOT's use of a vapor combustion unit (VCU) to combust 95 percent its offshore loading emissions, emitting 1,730 tons per year of volatile organic compounds (VOC) and 83 tons per year of hazardous air

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<sup>16</sup> Trey Cowan, *Shale Producers Find They Have Little Wiggle Room in 2022*, Institute for Energy Economics & Financial Analysis (IEEFA) (Apr. 2022), [https://ieefa.org/wp-content/uploads/2022/04/Shale-Producers-Find-Little-Wiggle-Room-in-2022\\_April-2022.pdf](https://ieefa.org/wp-content/uploads/2022/04/Shale-Producers-Find-Little-Wiggle-Room-in-2022_April-2022.pdf), attached as **Exhibit D**.

<sup>17</sup> James Osborne, *Oil companies struggle to secure financing, as banks feel climate pressure*, Houston Chronicle (Aug. 18, 2022), <https://www.houstonchronicle.com/business/energy/article/Oil-companies-struggle-to-secure-financing-as-17380634.php>, attached as **Exhibit E**.

<sup>18</sup> FEIS at 1-10.

<sup>19</sup> See Drane, *supra* note 5 (explaining that reverse-lightering "is an expensive process that can take as long as 10 days," and costs twice as much as loading oil onto VLCCs directly).

<sup>20</sup> See FEIS at 1-10, 2-62.

pollutants, like cancer-causing benzene.<sup>21</sup> MARAD and the USCG must revise the FEIS to study a VRU as a design alternative or mitigation measure.<sup>22</sup>

The FEIS dismisses a VRU as too complex and “not a common design for a project of similar size to the Proposed Action of the SPOT DWP,” without updating this section from previous drafts of the EIS.<sup>23</sup> The FEIS also posits that such a pollution control option would only remove 90 percent of SPOT’s VOC emissions, compared to the 95 percent efficiency that SPOT assumes for its VCU.<sup>24</sup> But this text fails to account for Texas GulfLink, LLC (“GulfLink”), another VLCC terminal seeking a Deepwater Port Act license mere miles from SPOT. As GulfLink outlined in presentations to MARAD and the USCG, it could install a VRU mounted on a support vessel that would capture 99.9 percent of the air emissions from offshore loading.<sup>25</sup> And rather than just burning off all of that captured pollution, like a VCU, the vessel-mounted VRU could recover the vast majority of the VOC for reuse as marketable crude oil, while using the non-liquifiable remainder as a fuel source for the support vessel’s engines.<sup>26</sup> And the vessel containing the VRU may be able to perform other necessary support functions as well.<sup>27</sup>

While GulfLink’s VRU presentations are dated November and December 2021, MARAD did not release them to the public until January 2022, exactly a month after the public comment period on SPOT’s SDEIS ended in December 2021.<sup>28</sup> Commenters had no way of knowing of this development at the time they filed their comments on SPOT’s SDEIS or prior versions of the draft. MARAD and the USCG, on the other hand, are well aware of GulfLink’s proposal, and they should have addressed this information in the FEIS. The agencies must now determine whether a vessel-mounted VRU could be an environmentally superior alternative to SPOT’s VCU or otherwise an available mitigation measure.

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<sup>21</sup> See *id.* at 3-361.

<sup>22</sup> See 40 C.F.R. § 1502.14(a) (2019) (providing agency must “[r]igorously explore and objectively evaluate all reasonable alternatives to the proposed action”); *id.* §§ 1502.14(f), 1502.16(h) (requiring EIS to consider “appropriate mitigation measures not already included in the proposed action or alternatives”); *id.* § 1500.1(b) (EIS “information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.”); 33 U.S.C. § 1503(c)(5) (requiring that deepwater port “will be constructed and operated using best available technology, so as to prevent or minimize adverse impact on the marine environment”).

<sup>23</sup> FEIS at 3-465.

<sup>24</sup> *Id.*

<sup>25</sup> See Texas GulfLink, Presentation, “OSV with Vapor Recovery Overview for MARAD and the USCG,” Nov. 9, 2021, attached as **Exhibit F** [hereinafter “GulfLink Nov. Presentation”]; Texas GulfLink, Presentation, “Offshore VOC Control Overview,” Dec. 14, 2021, attached as **Exhibit G** [hereinafter: “GulfLink Dec. Presentation”].

<sup>26</sup> See GulfLink Nov. Presentation at 7, 20; GulfLink Dec. Presentation at 4.

<sup>27</sup> *Cf.* GulfLink Dec. Presentation at 4, 9, 11, 13 (proposing to mount the VRU on one of the three support vessels that would have serviced the facility regardless, and stating that the vessel’s presence could improve emergency response).

<sup>28</sup> See <https://www.regulations.gov/document/MARAD-2019-0093-2944> (publishing the presentations in the GulfLink regulations.gov docket on January 13, 2022).

### **III. The FEIS fails to comply with NEPA's requirement that federal agencies take a hard look at environmental impacts.**

#### **A. The FEIS fails to assess environmental impacts of the “most likely spills” SPOT anticipates will result from the project.**

The FEIS states: “For purposes of this EIS, impact analyses are based on the Applicant’s model of a most likely scenario oil spill.”<sup>29</sup> For the reasons discussed in Commenters’ March DEIS Comment Letter and December 2021 SDEIS Comment Letter, the FEIS’s reliance on SPOT’s most likely spill scenarios—and complete failure to address impacts from a worst-case discharge—is fundamentally flawed and insufficient to satisfy NEPA.<sup>30</sup> Yet even assuming reliance on SPOT’s most likely spill scenarios could be sufficient, the FEIS violates NEPA by failing to take a hard look at the environmental impacts of those spills on wildlife.

SPOT provided fate modeling of three “most likely scenario” oil spills. All three scenarios involved a release of 2,200 barrels (bbl) of oil over 1 hour from the platform in BOEM lease block 463 in a water depth of approximately 117 feet. The scenarios differed only in oil type between heavy crude (Western Canadian Select [WCS]), lighter crude (West Texas Intermediate [WTI]), and condensate. SPOT’s modeling predicted the following specific concentrations and trajectories of surface exposure contaminants from each spill scenario:

- For the WCS spill, the model predicted a maximum surface exposure concentration of 5 to 10 g/m<sup>2</sup> would travel westward up to 62 miles from the spill site, <3 g/m<sup>2</sup> would travel 93 miles southeast of the spill site, and 47 percent of the oil would reach shore over a 60-day period, contaminating 243 miles of shoreline with >1 g/m<sup>2</sup> of oil along the Texas coast and part of Mexico.
- For the WTI spill, the model predicted a maximum surface exposure concentration of 5 to 10 g/m<sup>2</sup> would occur within the immediate vicinity of the spill site, <3 g/m<sup>2</sup> would spread 62 miles west of the spill site, and 18.5 percent of the oil would reach shore over a 60-day period, contaminating 146 miles of shoreline from Galveston Bay to East Matagorda Bay with >1 g/m<sup>2</sup> of oil.
- And for the condensate spill, the model predicted a maximum surface exposure concentration of 1 to 3 g/m<sup>2</sup> would occur within the immediate vicinity of the spill site, <1 g/m<sup>2</sup> would spread 45 miles east and west of the spill site, and 0.05 percent of the oil would reach shore over a 60-day period, contaminating 7 miles of shoreline seaward of East Matagorda Bay with >1 g/m<sup>2</sup> of oil.

The environmental impacts analysis reiterates SPOT’s model outputs, yet stops short of any analysis of what impacts will occur to wildlife from these three expected spills.<sup>31</sup> Instead, after relaying the specific exposure trajectories, the FEIS inexplicably repeatedly and summarily concludes: “the effects of a spill would vary based on the volume of oil released and the time of year of that release. Impacts on [species] would be direct or indirect, adverse, short-term or long-

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<sup>29</sup> FEIS at 3-98.

<sup>30</sup> See March DEIS Comment Letter Section VII, pages 25-51; December 2021 SDEIS Comment Letter Section VIII, pages 21-25.

<sup>31</sup> See, e.g., FEIS at 3-126 to 3-127; 3-184 to 3-185.

term, and minor to major, depending on the size of the spill and the level of exposure to the release.”<sup>32</sup> These equivocal conclusions entirely ignore the outputs from SPOT’s most likely spill scenarios and amounts to no analysis whatsoever of oil spill impacts on these resources, violating NEPA’s hard look requirement.

The inadequacy of the environmental impacts analysis section for the non-endangered marine mammals in particular is glaring given that the FEIS acknowledges that species will suffer acute harm when exposed to oil spills.<sup>33</sup> The FEIS identifies nineteen species of non-endangered marine mammals or cetaceans that could be impacted by the SPOT Project.<sup>34</sup> The FEIS recognizes the high toxicity of polycyclic aromatic hydrocarbons (PAHs) released by oil spills and the direct adverse harm it can have on marine mammals through multiple pathways including contaminated air, water, and sediment.<sup>35</sup> The FEIS also calculates the maximum dose and exposure of PAHs in the water column from all three most likely spill scenarios.<sup>36</sup> Yet, the FEIS fails to make a qualitative or quantitative impacts assessment of the harm the PAHs from these modeled spills will have on any of the nineteen marine mammal species. Instead, the FEIS reiterates its equivocal conclusion that “impacts on marine mammals would be direct, adverse, short-term to long-term, and minor to major, depending on the volume of hazardous material released and the exposure of species to the release.”<sup>37</sup> Without an analysis of harm from the PAHs on the members of any species, the FEIS has made no assessment of the oil spill impacts to marine mammals.

The lack of analysis is even more egregious for the species listed as threatened or endangered under the Endangered Species Act (ESA). It is imperative that the agencies engage in a robust analysis for these species most at risk of extinction and most susceptible to consequential and long-term harm. Yet, the FEIS engages in scant discussion, resorting to merely cross-referencing the impacts analyses of their non-endangered counterparts that, as explained above, are grossly inadequate.<sup>38</sup> For threatened and endangered birds, the FEIS summarily states the impacts from oil spills “would be similar to those described for non-listed birds” and its impacts “would be direct and indirect, adverse, short-term to long-term, and minor.”<sup>39</sup> For listed mammals, the FEIS cross-references other sections and summarizes that oil spill impacts “would be direct, adverse, long-term, and minor to major, depending on the size of the spill.”<sup>40</sup> And for sea turtles, the FEIS summarily claims “the impacts on sea turtles would be direct, adverse, long-term, and moderate to major, depending on the size, location, and timing of the spill” and cross references 5.3.2.1.<sup>41</sup> The cross-reference to Section 5.3.2.1. is superfluous, as the FEIS only reiterates therein that an oil spill “would adversely affect sea turtles and these important habitats”

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<sup>32</sup> *Id.* at 3-128 (birds); *see also id.* at 3-188 (marine mammals), 3-225 (sea turtles), 3-236 (state-listed species).

<sup>33</sup> *See id.* Section 3.5.7.

<sup>34</sup> *Id.* at 3-155.

<sup>35</sup> *Id.* at 3-186 to 3-187.

<sup>36</sup> *Id.* at 3-186.

<sup>37</sup> *Id.* at 3-188.

<sup>38</sup> *See id.* at 3-221 to 3-222.

<sup>39</sup> *Id.* at 3-221 to 3-222.

<sup>40</sup> *Id.* at 3-222.

<sup>41</sup> *Id.* at 3-228.



and “would result in adverse impacts on sea turtles that would be direct, adverse, long-term, and minor to major, depending on the size, location, and timing of the spill(s).”<sup>42</sup> Without any analysis of potential impacts from anticipated oil spills to a particular individual species, especially those populations deemed most vulnerable by federal agencies, the FEIS’s assessment of harms to the species most at risk is entirely meaningless.

Contrary to the FEIS’s claim that “[f]or purposes of this EIS, impact analyses are based on the Applicant’s model of a most likely scenario oil spill,” the FEIS provides no assessment of anticipated oil spill impacts to wildlife in connection to any spill scenario.<sup>43</sup> Nowhere in the impacts analyses is there an assessment of impacts that would result from a 2,220 bbl spill on any environmental resource, whether birds, marine mammals, or sea turtles. Without an impacts analysis on oil spills, the FEIS subverts NEPA’s requirement to take a hard look at environmental impacts.

B. The FEIS fails to assess mitigation measures for impacts to the environment.

Beyond failing to assess potential harm from oil spills, the FEIS fails to assess proper mitigation of those harms. As previously discussed in Commenters’ “March DEIS Comment Letter,” Appendix I is insufficient to serve as a tool to discuss oil spill response actions.<sup>44</sup> MARAD and the USCG have made no changes to Appendix I since the DEIS and Commenters continue to object to all of the deficiencies previously identified in their past comment letters. Additionally, the FEIS repeatedly relies on a yet-to-be-developed “operational spill response plan” to mitigate any impacts to the environment from oil spills. For the reasons discussed below, this “sight-unseen” response plan does not satisfy mitigation requirements under NEPA.

NEPA requires “that mitigation be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated” prior to the decision point.<sup>45</sup> The “detailed discussion of possible mitigation measures” is an “important ingredient of an EIS,” because “[i]mplicit in NEPA’s demand that an agency prepare a detailed statement on ‘any adverse environmental effects which cannot be avoided should the proposal be implemented,’ 42 U.S.C. § 4332(C)(ii), is an understanding that the EIS will discuss the extent to which adverse effects can be avoided.”<sup>46</sup> The omission of “a reasonably complete discussion of possible mitigation measures would undermine the ‘action-forcing’ function of NEPA.”<sup>47</sup> This discussion “obligates agencies to do more than simply list possible mitigation measures.”<sup>48</sup> For a site-specific proposal, it is “generally necessary” to include “[d]etailed quantitative assessments of possible mitigation measures.”<sup>49</sup> “Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects.”<sup>50</sup>

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<sup>42</sup> *Id.* at 5-41.

<sup>43</sup> *Id.* at 3-98.

<sup>44</sup> See March DEIS Comment Letter Section VII, pages 32-35, 52.

<sup>45</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).

<sup>46</sup> *Id.* at 351-52.

<sup>47</sup> *Id.* at 352.

<sup>48</sup> *Webster v. U.S. Dep’t of Agric.*, 685 F.3d 411, 431 (4th Cir. 2012).

<sup>49</sup> *San Juan Citizens All. v. Stiles*, 654 F.3d 1038, 1054 (10th Cir. 2011).

<sup>50</sup> *Robertson*, 490 U.S. at 352.

The FEIS's deferral of NEPA's demand for mitigation analysis and its reliance on "sight-unseen," "anticipated-but-unidentified mitigation measures" is unacceptable under NEPA.<sup>51</sup> Throughout the environmental analysis section of the FEIS, MARAD and the USCG refer to a nonexistent "operational spill response plan" that SPOT will develop in the future to minimize the impacts of an oil spill on wildlife.<sup>52</sup> The FEIS states that such an operational spill response plan will be contained in the Port Operations Manual (OPSMAN).<sup>53</sup> The OPSMAN, however, will not be completed until post-licensure, just prior to the commencement of operations.<sup>54</sup>

The MARAD and the USCG cannot "blithely assume[]" that the measures contained in a "TBD" operational spill response plan will suffice to mitigate harms from any oil spill resulting from the SPOT Project and approve the project without an understanding of the attendant harms.<sup>55</sup> The FEIS fails to contain any discussion of mitigation measures that enables the agencies and the public to fairly evaluate environmental impacts and violates NEPA's clear directives.

### C. The FEIS Fails to Take a Hard Look at the Impacts of SPOT on Wildlife

The FEIS continues to fail to take a hard look at the impacts of SPOT on wildlife in the Gulf, including species protected as threatened or endangered under the ESA.

As just one example, the FEIS fails to take a hard look at new data bearing directly on Project impacts to the Rice's whale, one of the most endangered marine animals on Earth. As we have previously explained, ship strikes pose a significant risk to Rice's whales. Studies have shown that the whales tend to spend significant amounts of time near the surface of the water, rendering them more vulnerable to being run over and killed by vessels.<sup>56</sup> One tagged whale, for example, spent 70 percent of its time over an entire day within 15 meters of the surface; and 88 percent of nighttime hours—hours when it would not be easily visible to vessels—near the surface.<sup>57</sup>

Yet the FEIS concludes the risk of a ship strike from SPOT is "low" because the whales "appear to be restricted to an area near Florida."<sup>58</sup> Similarly, despite scientific studies demonstrating that human-caused noise, including shipping noise, can cause a host of problems for the whales, including "the potential to degrade their habitat, reduce their listening space,

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<sup>51</sup> See *Am. Rivers v. FERC*, 895 F.3d 32, 54 (D.C. Cir. 2018).

<sup>52</sup> See, e.g., FEIS at 3-72, 3-93, 3-102, 3-187, 3-207, 3-236.

<sup>53</sup> See, e.g., *id.* at 4-16, 4-28.

<sup>54</sup> See *id.* at 4-1.

<sup>55</sup> See *Am. Rivers*, 895 F.3d at 54.

<sup>56</sup> Soldevilla et al., *Spatial distribution and dive behavior of Gulf of Mexico Bryde's whales: potential risk of vessel strikes and fisheries interactions*, 32 *Endang. Species Res.* 533–550 (2017) (Prior to 2021, the Rice's whale was thought to be a distinct subspecies of Bryde's whales, known as the Gulf of Mexico Bryde's whale), attached as **Exhibit H** [hereinafter "Soldevilla et al. 2017"].

<sup>57</sup> *Id.*

<sup>58</sup> See, e.g., FEIS, Appx. E at 84.

mask biologically important sounds, and potentially cause injury,”<sup>59</sup> MARAD dismissed the impacts of noise pollution from SPOT based on the assumption that the whales are unlikely to be found in the Project area.<sup>60</sup>

Indeed, this assumption—that Rice’s whales are unlikely to be in the action area—is the foundation on which MARAD based its conclusion that SPOT will not have a significant impact on the Rice’s whale. MARAD likewise based its conclusion under the ESA that SPOT “is not likely to adversely affect” the Rice’s whale because the species is “unlikely to be found near” the project.<sup>61</sup> However, new scientific information reveals these assumptions are incorrect. This renders MARAD’s findings and conclusions regarding the impact (or lack thereof) of *all* the various potential stressors from the project on this critically endangered whale incorrect and invalid.

Specifically, a scientific paper issued earlier this year, based on long-term passive acoustic recordings of Rice’s whales, demonstrates that “some whales persistently occur over a broader range in the [Gulf of Mexico] than previously understood.”<sup>62</sup> The paper indicates the whales are persistently found in the Western Gulf of Mexico, with sightings that include waters off the coast of Texas.<sup>63</sup>

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<sup>59</sup> Soldevilla et al., *Rice’s whales in the northwestern Gulf of Mexico: call variation and occurrence beyond the known core habitat*, 48 Endang. Species Res. 155–174 (2022), attached as **Exhibit I**, [hereinafter “Soldevilla et al. 2022”]; *see also* Rosel et al., *Status review of Bryde’s whales (Balaenoptera edeni) in the Gulf of Mexico under the Endangered Species Act*, NOAA Tech Memo NMFSSSEFSC- 692 (2016).

<sup>60</sup> *See, e.g.*, FEIS, Appx. E at 88.

<sup>61</sup> *See, e.g.*, FEIS at 3-213.

<sup>62</sup> Soldevilla et al. 2022, *supra* note 59.

<sup>63</sup> *Id.* (noting that this new information “[i]n combination with a 2017 sighting of a genetically identified Rice’s whale at the shelf break off Corpus Christi, Texas . . . provide evidence for the persistent occurrence of some Rice’s whales over a broader distribution in the GOM than previously understood[.]”).

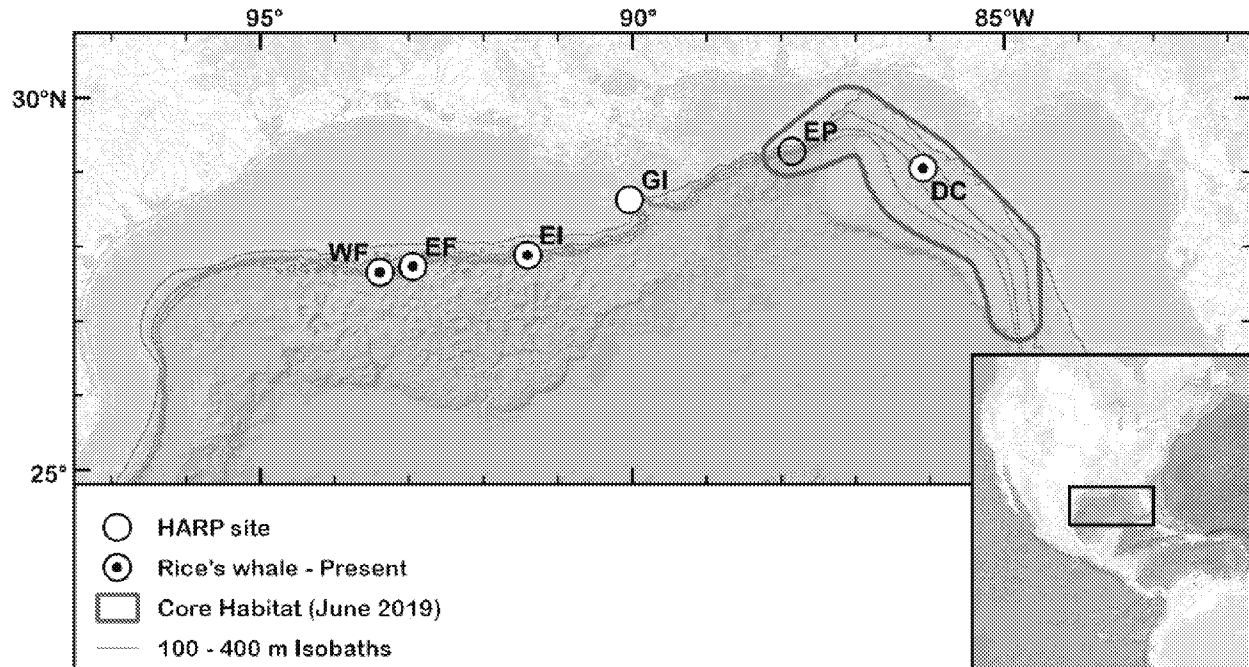


Fig. 1. Locations of 5 high-frequency acoustic recording packages (HARPs) deployed along the northern Gulf of Mexico (GOM) shelf break in areas of potential Rice's whale habitat from July 2016 to August 2017 and a long-term HARP (De Soto Canyon, DC) deployed in the Rice's whale core habitat in the northeastern GOM since 2010. White-filled circles indicate successful data collection; black dots indicate Rice's whale call presence. Known Rice's whale core habitat (gray outline, as of June 2019) and 100 m isobath contours from 100 to 400 m are also shown. WF: Flower Garden West; EF: Flower Garden East; EI: Eugene Isle South; GI: Grand Isle South; EP: East Main Pass

The specific longitude, latitude and depths for the recordings are as follows:

Site	Site ID	Latitude (°N)	Longitude (°W)	Depth (m)	Start date (UTC, h)	End date (UTC, h)	Duration (d)	Data quantity (GB)
East Main Pass <sup>a</sup>	EP	29.2811	87.8583	233	7/19/2016 (18:00)	9/19/2016 (08:37)	62	19.8
Grand Isle South	GI	28.6292	90.0405	206	7/20/2016 (06:00)	8/13/2017 (12:10)	389.3	125.4
Eugene Isle South	EI	27.8845	91.4094	272	7/20/2016 (18:00)	5/15/2017 (22:27)	299.2	96.4
Flower Garden East	EF	27.7331	92.9513	261	7/21/2016 (06:00)	5/15/2017 (15:05)	298.4	96.1
Flower Garden West	WF	27.6541	93.3941	260	7/21/2016 (06:00)	5/15/2017 (12:24)	298.3	96.1
De Soto Canyon <sup>b</sup>	DC	29.0480	86.0975	270	8/25/2016 (00:00)	7/18/2017 (16:32)	304.4	97.9

<sup>a</sup>The East Main Pass instrument had a hardware failure after 2 mo

<sup>b</sup>The De Soto Canyon HARP data were decimated from a 200 kHz sample rate to a 2000 Hz sample rate since only low-frequency data were needed for this analysis. Data quantity represents the decimated data for closest comparison with the low-frequency configured HARPs which had a 2000 Hz sample rate. This dataset had a minor disk write error that missed approximately 5 s per 37.5 min file. The duration represents the total sum duration of the recordings, not the total number of unique days with recordings present

The paper concludes that “[t]he presence of whales in the western [Gulf of Mexico] suggests they may have an increased risk of interaction with potentially harmful human activities.”<sup>64</sup>

Even before this new information regarding the distribution of the Rice's whale, the National Marine Fisheries Service had determined that existing oil and gas drilling activity on

<sup>64</sup> *Id.*

the Gulf of Mexico Outer Continental Shelf already jeopardize the species' continued existence.<sup>65</sup> This new information further demonstrates how SPOT and VLCC transport serving the facility, located in the same area as existing outer continental shelf drilling operations, will further exacerbate the whale's demise. This also underscores why approving SPOT would be contrary to the national interest in ensuring the survival and recovery of endangered species, no matter the cost.<sup>66</sup>

At the very least, these new scientific studies constitute new information triggering MARAD's duty to issue a supplemental EIS before making a determination about whether to approve or deny the Project.<sup>67</sup> As part of that analysis, MARAD must consider requiring additional mitigation measures or alternatives to better protect Rice's whales from SPOT, including requiring all Project-related vessels to travel at no more than 10 knots and to prohibit them from traveling during nighttime hours; or restricting activity during the times of year when the whales are more likely to be in the Project area in greater numbers.

Other new information that the FEIS fails to consider includes new information regarding the extent that climate change threatens marine species.<sup>68</sup> One recent study concluded, for example, that "under business-as-usual global temperature increases, marine systems are likely to experience mass extinctions on par with past great extinctions."<sup>69</sup> Another recent study reached similar conclusions, determining that under a business-as-usual scenario nearly 90 percent of the world's marine life would be at high or critical risk of negative climate impacts by the end of this century.<sup>70</sup>

The FEIS also fails to consider new information regarding the extent of harm that the Deepwater Horizon oil spill disaster caused to species in the Gulf. One recent study, for example, concluded that the oil spill caused genetic changes, including "a shift in immune response, cytoskeletal alterations, and mitochondrial dysfunction;" and that these types of changes have led to "reproductive failure, and lung or cardiac dysfunction, among other problems."<sup>71</sup> The FEIS also fails to properly consider the extent of nesting habitat of Kemp's ridley sea turtles in the northern

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<sup>65</sup> Rice's Whale Recovery Outline, NOAA Fisheries, <https://media.fisheries.noaa.gov/2021-08/RIWH-Recovery-Outline-Final-508-Compliant.pdf.pdf>.

<sup>66</sup> *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978); *see also Am. Rivers v. FERC*, 895 F.3d 32, 50-51 (D.C. Cir. 2018) (holding NEPA analysis unlawful where it failed to address fact that hydroelectric project relicensing would compound fish mortality).

<sup>67</sup> *See* 40 C.F.R. § 1502.9(d)(1)(ii) (requiring an agency to issue a supplemental EIS where "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.").

<sup>68</sup> Justin L. Penn and Curtis Deutsch, *Avoiding ocean mass extinction from climate warming*, 376 *Science* 524-526 (2022), attached as **Exhibit J**.

<sup>69</sup> *Id.*

<sup>70</sup> Boyce et al., *A climate risk index for marine life*, *Nat. Clim. Chang.* (2022), <https://doi.org/10.1038/s41558-022-01437-y>, attached as **Exhibit K**.

<sup>71</sup> Morey et al., *Transcriptome profiling of blood from common bottlenose dolphins (*Tursiops truncatus*) in the northern Gulf of Mexico to enhance health assessment capabilities* (2022) *PLoS ONE* 17(8): e0272345, <https://doi.org/10.1371/journal.pone.0272345>, attached as **Exhibit L**.

Gulf of Mexico.<sup>72</sup> Recent information regarding the extent to which vessel strikes are threatening whale sharks—known to occur in the northern Gulf of Mexico in the summer and fall—which indicate the scale of the problem has been vastly underestimated.<sup>73</sup>

This new information affects both the environmental baseline from which MARAD must evaluate the impacts of SPOT, and the potential impacts of SPOT to species already struggling to survive the numerous harms the fossil fuel industry has already placed on the habitats and ecosystems of the Gulf of Mexico.

D. The FEIS wrongly dismisses the harm from the Project’s massive greenhouse gas emissions and uses an inadequate method to estimate these emissions.

1. The FEIS fails to consider any harm attributable to the Project’s lifecycle greenhouse gas emissions.

The FEIS continues to assert that SPOT would have little or no impact on global greenhouse gas emissions.<sup>74</sup> In doing so, the FEIS fundamentally errs. It dismisses its own emissions estimates showing that SPOT would be responsible for well over 200 million tons per year in greenhouse gas emissions from enabling the production and consumption of large quantities of oil, imposing an eye-popping, maximum social cost of carbon of as much as \$27 billion per year.<sup>75</sup> And instead of reckoning with that harm, the document pivots to assert that SPOT’s greenhouse gas emissions would happen regardless of SPOT, from oil produced in other regions or exported by other ports.<sup>76</sup> The FEIS’s claim lacks basis. For one, the FEIS ignores the baseline reality that U.S. onshore oil production will decline in the absence of SPOT, both

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<sup>72</sup> Maya Yang, *Endangered sea turtles found on Louisiana islands for first time in 75 years*, The Guardian (Aug. 21, 2022), <https://www.theguardian.com/us-news/2022/aug/21/louisiana-sea-turtles-chandeleur-islands-new-orleans>, attached as **Exhibit M**.

<sup>73</sup> NMFS, *New Publication Highlights Whale Shark Movements in the Gulf of Mexico* (Jan. 2021), <https://www.fisheries.noaa.gov/feature-story/new-publication-highlights-whale-shark-movements-gulf-mexico>, attached as **Exhibit N**; Hoffmayer et al., *Seasonal Occurrence, Horizontal Movements, and Habitat Use Patterns of Whale Sharks (Rhincodon typus) in the Gulf of Mexico*, Front. Mar. Sci. 7:598515, attached as **Exhibit O**; Womersley et al., *Global collision-risk hotspots of marine traffic and the world’s largest fish, the whale shark*, Proceedings of the National Academy of Sciences (2022), attached as **Exhibit P**.

<sup>74</sup> FEIS at 5-56 to 5-57.

<sup>75</sup> *Id.* at 5-55 to 5-56. We reiterate that SPOT’s direct and indirect greenhouse gas emissions likely would be higher still, potentially more than twice as large. Dr. Petra Pless, in her expert report, determined that a best estimate of the Project’s upstream and downstream emissions are “**367 to 396 million tons CO2e/year** when exporting U.S. crude oils originating from the Permian Basin and Eagle Ford oilfields and **from 477 to 590 million tons CO2e/year** when exporting Canadian crude oils originating from the Athabasca and Cold Lake oilfields.” See Dec. of Petra Pless, attached as Exhibit A to the June 2020 Supplemental Comment Letter. We discuss the analytical errors in the FEIS’s method for estimating lifecycle emissions estimates further below, in subsection 2.

<sup>76</sup> FEIS at 5-57.

because of declining oil demand globally and because producers would face greater barriers to export their product to foreign buyers and would leave more oil in the ground as result.<sup>77</sup> And the FEIS does not reconcile how the agencies could approve a Project that would enable such massive greenhouse gas emissions with the U.S. government's national climate policy to reach net-zero greenhouse gas emissions by 2050.

The FEIS's claim is based on an increasingly unlikely baseline view of the world, leaving by the wayside the other, more likely scenarios that may counsel choosing alternatives to the Project.<sup>78</sup> Specifically, the FEIS relies on a high-oil production and demand scenario, in which future oil suppliers would rush to construct other analogous, expensive infrastructure projects to replace SPOT and its direct and indirect greenhouse gas emissions. But that high-emissions, "business as usual" scenario is unlikely, because it conflicts with the imperative to reduce greenhouse gas emissions to maintain a livable climate. It also conflicts with the United States' own national climate policy, enacted in Presidential Executive Orders. It also conflicts with international obligations, like the Paris Climate Agreement, as we explained in Section I. Indeed, the U.S. Bureau of Land Management, in a recent EIS, admitted that the same sort of high oil production trajectory would be but a "worst-case scenario," and "maximum emissions baseline."<sup>79</sup> At a minimum, the FEIS must evaluate SPOT against a baseline that accounts for the energy transition actively underway, and stated global climate commitments, not solely one tethered to the economy of the past.<sup>80</sup>

Furthermore, studies demonstrate that building large, new, Gulf of Mexico VLCC export capacity would increase global greenhouse gas emissions on net, substantially, especially as that cheaper oil would not just spur more oil consumption, but also thwart adoption of lower-emitting alternatives.<sup>81</sup> SPOT's capacity addition certainly is large, amounting to about 2 percent of the

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<sup>77</sup> See FEIS at 1-11 (explaining that most fracked oil must be exported because of lack of domestic demand for it by U.S. refiners).

<sup>78</sup> See *WildEarth Guardians v. U.S. Bureau of Land Mgmt.*, 870 F.3d 1222, 1234–37 (10th Cir. 2017); 40 C.F.R. § 1502.22 (2019) ("If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement.").

<sup>79</sup> See R. Rothschild & M. Sarinsky, *Toward Rationality in Oil and Gas Leasing*, Institute for Policy Integrity 15 (Aug. 6, 2021), <https://policyintegrity.org/publications/detail/toward-rationality-in-oil-and-gas-leasing> (citing BLM, Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement (2019)), attached as **Exhibit Q**.

<sup>80</sup> To the extent the FEIS relies on EIA long-term forecasting data, this cannot suffice because the EIA explicitly does not account for even foreseeable changes in law and energy policy in these forecasts, as Commenters already describe. See December 2021 SDEIS Comment Letter at 9, and other reports explain, see R. Rothschild & M. Sarinsky, *Toward Rationality in Oil and Gas Leasing*, *supra* note 79 at 16. This contrasts with the agencies' NEPA obligation to engage in reasonable forecasting where necessary. See *Ctr. for Biological Diversity v. Bernhardt*, 982 F.3d 723, 735 (9th Cir. 2020).

<sup>81</sup> Dec. of Peter Erickson, Att. B, Expert Report at 1, 7, attached as Exhibit U to the December 2021 SDEIS Comment Letter; see R. Rothschild & M. Sarinsky, *Toward Rationality in Oil and Gas Leasing*, *supra* note 79 at 14; cf. EIA, *What Drives Crude Oil Prices?*,

global oil supply.<sup>82</sup> Contrary to the FEIS's claim that emissions will occur regardless, the Institute for Policy Integrity surveyed the academic and professional literature on large-scale fossil-fuel leasing decisions and found that approximately half of the emissions attributable to these projects would not occur *but for* the project's existence.<sup>83</sup>

Indeed, industry analyst RBN Energy found that it is pipeline and export terminal "infrastructure projects and refinery closures that, in combination, are enabling more crude oil from Western Canada, the Bakken, and the offshore Gulf of Mexico (among other places) to flow to LOOP [the Louisiana Offshore Oil Port] and the three export terminals in Beaumont and Nederland, which are owned by Energy Transfer, Phillips 66, and Enterprise."<sup>84</sup> Speaking about this very Project on Enterprise Product Partners' most recent quarterly earnings call, Executive Vice President Brent Secrest likewise told investors, "ultimately I think once [SPOT] goes forward that will change the flow patterns for crude oil exports."<sup>85</sup> By contrast, the reason Corpus Christi's ports have outperformed Enterprise's onshore oil export terminals recently is, "They can load larger ships than us. They can do it at higher rates."<sup>86</sup>

Last of all, the agencies seem to mistake their answer to whether SPOT may replace emissions from other oil-producing nations as entirely dispositive of the NEPA obligation to address the Project's greenhouse gas emissions.<sup>87</sup> The agencies still must analyze the Project's greenhouse gas emissions in the context of national climate goals.<sup>88</sup> The United States has

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<https://www.eia.gov/finance/markets/crudeoil/supply-nonopec.php> (explaining that "increases in non-OPEC supply contribute to lower oil prices, [while] disruptions of non-OPEC production reduce global oil supply and can lead to higher oil prices."), attached as **Exhibit R**.

<sup>82</sup> See Erickson Report at 2.

<sup>83</sup> R. Rothschild & M. Sarinsky, *Toward Rationality in Oil and Gas Leasing*, Institute for Policy Integrity, *supra* note 79 at 14 ("While research finds some substitution from extraction on federal lands, there is little justification for rates of 95%. Instead, analyses tend to converge on substitution and leakage rates of around 50%.").

<sup>84</sup> Housley Carr, *Every Little Thing - Pipeline Projects, Refinery Closures Alter Flows to Crude Export Venues*, RBN Energy (Jan. 18, 2022), <https://rbnenergy.com/every-little-thing-pipeline-projects-refinery-closures-alter-flows-to-crude-export-venues>, attached as **Exhibit S**; David Brazil, *If I Could Change the World - Growing Crude Oil Export Volumes Reshape Domestic and Global Markets*, RBN Energy (Aug. 17, 2022), <https://rbnenergy.com/if-i-could-change-the-world-growing-crude-oil-export-volumes-reshape-domestic-and-global-markets> (explaining that not only did lifting U.S. crude export restrictions in 2015 accelerate exports, more "efficient movement of crude oil to the refineries best optimized to run it, domestically and overseas, is still a key consideration in today's market, six and a half years after the export ban was lifted."), attached as **Exhibit T**.

<sup>85</sup> See Tr. of Enterprise Products Partners L.P.'s Q2 Earnings Call (Aug. 3, 2022), *available at* <https://seekingalpha.com/article/4529238-enterprise-products-partners-l-p-s-epd-management-on-q2-2022-results-earnings-call-transcript>, attached as **Exhibit U**.

<sup>86</sup> See *id.*

<sup>87</sup> See FEIS at 5-57 (noting that SPOT's "reduced cost of transporting crude oil will increase the profits available to U.S. crude oil producers and resellers who choose to export their crude oil," but that this would only "be expected to largely displace production in other countries").

<sup>88</sup> *Sierra Club v. FERC*, 867 F.3d 1357, 1374 (D.C. Cir. 2017).



committed to reduce net greenhouse gas emissions by 50 to 52 percent by 2030 and has set a goal of net zero greenhouse gas emissions by no later than 2050.<sup>89</sup> But this Project would move in the opposite direction, as it would be responsible for considerable upstream greenhouse gas emissions in the United States itself, and for exporting hundreds of millions of tons per year in greenhouse gas emissions to other nations. The Project could lock in those emissions for the decades the deepwater port license remains valid, as SPOT's proponents attempt to recoup their investment. Given the sheer size of SPOT's capacity and emissions, such a Project will do harm to U.S. climate policy and its credibility on the world stage.

SPOT's new VLCC-loading capacity would spur more U.S. onshore oil production, and more foreign consumption of oil overall, than would be the case if SPOT did not build. The agencies must account for the increased greenhouse gas emissions from this oil in deciding whether to approve or deny the Project.

## 2. The FEIS's lifecycle greenhouse gas emissions analysis is inadequate.

The FEIS's analysis of lifecycle greenhouse gas emissions from potential oil exports considers neither the origin of the oil for export nor the ultimate destination of that oil. Instead, for upstream emissions, the analysis uses the U.S. EPA's Greenhouse Gas Inventory's estimate of total U.S. upstream GHG emissions for the year 2019 and assumes that each barrel of oil produced in the United States is responsible for an equal portion of that total.<sup>90</sup> In other words, because the oil that could be exported by SPOT constitutes 16% of total 2019 U.S. oil production, it is assumed that upstream emissions from oil exported by SPOT are likewise 16% of the total. Similarly, for downstream refining emissions, though refining would occur in another country, it is assumed that the oil exported by SPOT constitutes an amount of refining emissions equal to 16% of total 2019 U.S. crude oil refining emissions. While these assumptions were perhaps convenient for the analysis, they are a significant oversimplification. These assumptions fail to account for potential upstream emissions differences due to the oil basin sourced for oil exports, and they fail to account for differences in refining emissions depending on the destination country and its associated pollution control requirements.

For example, the FEIS claims that it is not possible to "attribute the crude oil to be exported by the Project to one or multiple oil production areas."<sup>91</sup> However, elsewhere the FEIS explains the expected sources of the oil SPOT would export:

The Proposed Action is an export project and, as such, any alternatives considered must have the ability to export crude oil. Furthermore, surplus crude oil sources from excess production capability, at the time of this EIS, are primarily located in the Permian Basin in west Texas and the Eagle Ford Basin in south Texas. Thus, the system alternatives evaluated focus on new, existing, and proposed infrastructure capable of delivering and storing crude oil from these basins, ideally located along the Coast.<sup>92</sup>

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<sup>89</sup> FEIS at 5-53.

<sup>90</sup> FEIS at Appendix BB.

<sup>91</sup> FEIS at 5-54.

<sup>92</sup> FEIS at ES-7.

As the FEIS indicates, there is some expectation that oil for export will primarily come from the Permian Basin in west Texas and the Eagle Ford Basin in south Texas. There is a range in upstream emissions across different U.S. basins, with the Permian and Eagle Ford basins at the higher end, according to data from Rystad Energy.<sup>93</sup> According to 2020 data, the Permian and Eagle Ford basins have emissions intensities of 10.9 and 11.0 kg CO<sub>2</sub> per barrel of oil equivalent, placing their emissions higher than those in the Niobrara, Haynesville, and Appalachia basins. Meanwhile, they fall below the Bakken Formation which has an emissions intensity of 20.7 kg CO<sub>2</sub> per barrel of oil equivalent. Acknowledging the caveat that the above estimates include emissions associated with fossil gas production rather than just oil, based on this data, the origin of a barrel of oil would affect its associated CO<sub>2</sub> emissions, which would ultimately affect the CO<sub>2</sub> emissions attributable to SPOT.

Notably, the Rystad Energy data, while it is informative in showing the range in upstream CO<sub>2</sub> emissions across basins, likely does not present the full view of potential emissions variability. With the Rystad Energy data, emissions are reported as “kg CO<sub>2</sub>” rather than “kg CO<sub>2</sub>-equivalent”, which is a key distinction since “kg CO<sub>2</sub>-equivalent” accounts for all greenhouse gas emissions from upstream processes, including methane, rather than just CO<sub>2</sub>. Methane emissions are a significant factor in assessing emissions burden, with characteristics of methane emissions also varying across basins. For instance, according to a 2020 study, Permian Basin methane emissions measured from oil and natural gas production between May 2018 and March 2019 represented the largest methane flux ever reported from a U.S. oil and gas-producing region.<sup>94</sup>

In fact, the Permian Basin is thought to be responsible for nearly half of the methane emissions from all U.S. oil- and gas-producing regions.<sup>95</sup> Some of this is because of the Permian Basin’s outsized role in total U.S. oil production, representing about 30% of the U.S. total. But it is also due to the Permian’s high methane leakage rate, which thanks to extensive venting and flaring, may be 60% above the national average leakage rate.<sup>96</sup> The uniquely large amounts of methane emanating from the Permian Basin undoubtedly inflate the carbon intensity of oil derived from there, but the FEIS lifecycle analysis does not account for this.

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<sup>93</sup> Cocklin, J., *Appalachian Natural Gas, Coal Produce Most Methane in U.S., Kayrros Says*, Natural Gas Intelligence (Apr. 26, 2021); Borden, K., *Record gas production expected for U.S. in 2022*, CompressorTech2 (Apr. 23, 2021). The information referenced could originally be found on at <https://www.rystadenergy.com/newsevents/news/press-releases/a-gas-boom-is-coming-in-the-us-a-closer-look-at-haynesville-and-appalachia-reveals-records-and-a-risk>, but it is no longer available.

<sup>94</sup> Zhang et al., *Quantifying methane emissions from the largest oil-producing basin in the United States from space*, 6 Sci. Adv. 17 (2020), attached as **Exhibit V**.

<sup>95</sup> Irakulis-Loitxate, I. et al., *Satellite-based survey of extreme methane emissions in the Permian basin*, 7 Sci. Adv. (2021), attached as **Exhibit W**.

<sup>96</sup> Zhang et al., *Quantifying methane emissions from the largest oil-producing basin in the United States from space*, *supra* note 94; Burns, D. and Grubert, E., *Attribution of production-stage methane emissions to assess spatial variability in the climate intensity of US natural gas consumption*, 16 Environ. Res. Lett. (2021), attached as **Exhibit X**.

The FEIS method for estimating upstream emissions assumes that each barrel of oil, no matter its source, produces the same amount of CO<sub>2</sub>-equivalent per barrel. The FEIS does not account for the reality that the higher the carbon intensity of a basin, the greater the emissions. If it is indeed the case that most oil for export will come from the Permian and Eagle Ford basins, then the agencies should complete a lifecycle emissions analysis using the carbon intensities of these basins. If the agencies truly conclude it is impossible to predict where SPOT's oil will come from, they should use a maximum carbon intensity across basins to establish an upper-limit estimate of upstream emissions from the Project.

E. MARAD and the USCG fail to take a hard look at SPOT's air quality impacts.

1. The FEIS fails to evaluate SPOT's total ozone impacts and the harms the increase in ozone pollution will cause.

The FEIS' evaluation of the Project's ozone impacts does not comply with NEPA's requirement to take a hard look at SPOT's air quality impacts. This failure is particularly glaring for ozone since the Houston-Brazoria-Galveston region where SPOT will be built is already designated serious nonattainment for ozone based on the national ambient air quality standards ("NAAQS").<sup>97</sup> Ozone pollution poses serious health threats, including respiratory harm (e.g., worsened asthma, worsened COPD, and inflammation), early death, and cardiovascular harm (e.g., heart attacks, strokes, heart disease, and congestive heart failure), among other harmful impacts.<sup>98</sup>

Ozone is a secondary pollutant, which means it is not directly emitted from a project like SPOT but is instead formed from photochemical reactions in the atmosphere with ozone precursor pollutants, VOCs and NOx.<sup>99</sup> Therefore, to evaluate the ozone impacts of a project, agencies must use available assessment tools or modeling to predict a project's contribution to ozone levels based on the project's total estimated VOC and NOx pollution.<sup>100</sup>

The first deficiency in MARAD and the USCG's ozone analysis is the FEIS fails to estimate the total ozone levels that SPOT would add to the existing harmful ozone levels in the region from all of the components and phases of the project combined (i.e., construction and operations; onshore, offshore, and mobile source emissions).<sup>101</sup> Instead, MARAD and the USCG rely on SPOT's ozone estimates for different segmented portions of the Project from its DWP application and air permitting processes, but these do not combine all of SPOT's onshore and offshore ozone-producing emissions.

Second, MARAD and the USCG fail to disclose the increase in ozone levels for the offshore portions of the Project to the public and fail to analyze the harms of this increase in an

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<sup>97</sup> FEIS at 3-357.

<sup>98</sup> U.S. EPA, Integrated Science Assessment for Ozone and Related Photochemical Oxidants, Final Report (Feb. 2013), *available at* <https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247492>.

<sup>99</sup> See March DEIS Comment Letter at 95.

<sup>100</sup> See FEIS at 3-365.

<sup>101</sup> See March DEIS Comment Letter at 96.

area that is already out of compliance with federal air quality standards. But based on data in an appendix to SPOT's DWP Application, Commenters calculated that just the offshore operational emissions from the Project will result in a 1.8 ppb ozone increase.<sup>102</sup> This increase in ozone levels, while substantial, is not calculated by SPOT, MARAD, the USCG, nor is it included in the FEIS.

The FEIS also does not include any analysis of what health, economic or environmental impacts a marked increase in ozone of at least 1.8 ppb could have on people living in the surrounding communities, which are in an existing ozone nonattainment region. Instead, the FEIS erroneously states that "[t]he results of the ... ozone [] analyses show that the total air quality impacts would be less than ... the ozone [significant impact level]."<sup>103</sup> This is not accurate since the ozone significant impact level ("SIL") is 1 ppb,<sup>104</sup> and the analysis in SPOT's Application actually shows the Project's ozone emissions from the offshore components could be almost *double* the SIL. Moreover, the SIL has nothing to do with whether emissions are significant from a public health or NEPA standpoint, and thus is not a reasonable basis for evaluating health effects.<sup>105</sup>

Finally, the FEIS' ozone analysis for SPOT's offshore emissions erroneously relies on a background ozone level of 65 ppb, which is less than the ozone NAAQS of 70 ppb,<sup>106</sup> despite the FEIS' acknowledgment that the nearest onshore location to the proposed DWP is designated as severe nonattainment for ozone and "the NAAQS attainment status of the nearest adjacent onshore location should be considered for the offshore locations."<sup>107</sup> This value comes from just one ozone monitor of at least twenty for the Houston-Galveston-Brazoria region.<sup>108</sup> For example, the Houston Bayland Park monitor, which is highlighted by Texas' air quality agency as the one "that may ultimately be used to determine the area's compliance with the ozone

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<sup>102</sup> See SPOT Application, Vol. IIa, App'x Q. These data reflect both mobile and stationary offshore sources during the operational period of the Project, but do not include construction emissions or emissions from onshore components. This Appendix also only includes a table with an analysis based on a rough assessment tool called MERPs that estimates whether SPOT's offshore emissions will increase ozone more than a 5 ppb threshold. *Id.* We calculated based on this table that the increase in ozone from the Project's offshore emissions alone would be 36.19% of 5 ppb = 1.8095 ppb.

<sup>103</sup> FEIS at 3-365.

<sup>104</sup> The SILs come from a nonbinding EPA memoranda related to Clean Air Act permitting. See EPA, *Memorandum: Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program*, at 15 (April 17, 2018), available at [https://www.epa.gov/sites/default/files/2018-04/documents/sils\\_policy\\_guidance\\_document\\_final\\_signed\\_4-17-18.pdf](https://www.epa.gov/sites/default/files/2018-04/documents/sils_policy_guidance_document_final_signed_4-17-18.pdf).

<sup>105</sup> See *United States v. Ameren Mo.*, 421 F. Supp. 3d 729, 817 (E.D. Mo. 2019) ("[T]he SILs do not establish a level below which there is no risk of harm from a facility's pollution.").

<sup>106</sup> FEIS at 3-358.

<sup>107</sup> *Id.* at 3-357.

<sup>108</sup> See TCEQ, Compliance with Eight-Hour Ozone Standard, [https://www.tceq.texas.gov/cgi-bin/compliance/monops/8hr\\_attainment.pl](https://www.tceq.texas.gov/cgi-bin/compliance/monops/8hr_attainment.pl) (last visited August 31, 2022) (showing 20 monitors in the Houston-Galveston-Brazoria region).

standard,” has a level of 73 ppb, above the ozone NAAQS.<sup>109</sup> The use of this lower background ozone level from just one monitor in a broader region that has been in nonattainment for ozone for decades is arbitrary and provides a faulty starting point for the FEIS’ entire analysis of harms from the Project’s ozone impacts.

Without estimating and disclosing the full extent of ozone impacts of SPOT or the harms those additional ozone levels could cause in an existing nonattainment area, MARAD and the USCG have not taken a hard look at the air pollution harms of the Project. Moreover, MARAD and the USCG fail to support their conclusion that the air pollution impacts of the Project would be “minor”<sup>110</sup> and fail to evaluate whether mitigation measures, such as technology that could reduce SPOT’s air pollution (see Section II *supra*), could mitigate these impacts.

2. The FEIS fails to evaluate the cumulative impacts of SPOT’s air pollution combined with other proposed projects.

The FEIS also fails to evaluate the impacts of SPOT’s air pollution increases in combination with air pollution from other proposed or permitted projects in the area. The FEIS includes a new table listing emissions from other offshore VLCC and LNG export terminals proposed along the Texas Coast.<sup>111</sup> However, merely listing these emissions does not satisfy MARAD and the USCG’s obligation to analyze the Project’s impacts and does not comply with NEPA’s hard look requirement for cumulative air quality impacts.

First, this table does not provide any analysis or context for the public to understand the magnitude of these emissions or what the combination of these emissions could mean for worsening air quality in the region, nor does it evaluate the resulting health, environmental, or economic impacts of these combined levels of pollution. For example, it does not include modeling or analysis of SPOT’s air pollution combined with other proposed projects in the area, like the proposed GulfLink offshore export terminal which will also be a major source of hazardous air pollutants and ozone-causing pollution, including whether together these two projects could cause exceedances of federal air quality standards or disproportionately harm environmental justice communities.

Second, this table does not include a cumulative analysis of ozone impacts, which is particularly important given that, as discussed above, this region is already in nonattainment for federal ozone air quality standards. The table only includes the amounts of ozone precursor emissions (NOx and VOCs) but does not include any quantification of the levels of ozone these precursor emissions would add to the area, nor the resulting health, environmental, or economic impacts of the increase in ozone levels.<sup>112</sup>

Without understanding combined effects of air pollution, and ozone in particular, the FEIS has failed to take the requisite hard look to properly inform the public of adverse environmental impacts from this project.

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<sup>109</sup> *Id.*

<sup>110</sup> FEIS at ES-27, 3-365.

<sup>111</sup> *Id.* at 5-51.

<sup>112</sup> *Id.*

F. MARAD and the USCG fail to take a hard look at SPOT's disproportionate impacts to environmental justice communities.

In its environmental justice (“EJ”) analysis, MARAD and the USCG artificially limit the “affected area” to census “block groups partially or entirely within 1 mile of the onshore Project facility or workspace.”<sup>113</sup> This designated geographic scope of affected populations is based on a flawed analysis that many impacts from the Project are “minor” and does not reflect the geographic extent of many of the Project’s key impacts on EJ communities.<sup>114</sup> For example, the FEIS unlawfully minimizes SPOT’s harms from ozone pollution and oil pollution from the facility (*see* Sections III.A and III.E *supra*), and both of these types of harms would impact a much broader region than 1 mile and thus should be evaluated more broadly than more localized impacts.<sup>115</sup>

A new short section in the FEIS (Section 5.3.10.1) on “cumulative impacts of the proposed action on Environmental Justice” broadly recognizes that “overlapping impacts from multiple projects could more severely affect environmental justice communities” yet it fails to comply with NEPA and the Executive Order on Environmental Justice because it relies on the severity of impacts from MARAD and the USCG’s flawed cumulative impacts analysis.<sup>116</sup> For example, the agencies determine that impacts to environmental justice communities from air quality will be “negligible to minor” based entirely on its previous conclusion in the FEIS that the Project’s direct and cumulative air quality impacts in combination with other projects will be negligible to minor.<sup>117</sup> However, the flaws in the air quality analysis discussed above, particularly for harmful ozone pollution, also render this analysis of the project’s direct and cumulative impacts on environmental justice communities deficient.

Moreover, in MARAD and the USCG’s designated environmental justice sections (3.15 and 5.3.10), they fail to evaluate how increases in air pollution from the Project and other sources could cause disproportionate impacts to environmental justice populations based on unique health or risk factors that could increase these communities’ risk of harms, regardless of whether the air pollution levels are below federal air quality standards or are considered minor for the general population.<sup>118</sup> An EJ analysis should consider factors unique to each identified EJ

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<sup>113</sup> *Id.* at 3-431.

<sup>114</sup> EPA, *Promising Practices for EJ Methodologies in NEPA Reviews: Report of the Federal Interagency Working Group on Environmental Justice & NEPA Committee* (2016) at 15 (the outer boundaries of project effects “help define the affected area within which potentially impacted [EJ populations] will be considered during the NEPA review”) [Hereinafter: “EJ-IWG Guidance”].

<sup>115</sup> *See, e.g.*, FEIS at 5-5 (Air quality impacts evaluated in a 31.3-mile radius); *id.* at 3-97 (describing geographic extent of one oil spill model as contaminating “an estimated 243 miles of shoreline ... along the Texas coast and part of Mexico”).

<sup>116</sup> FEIS at 5-60.

<sup>117</sup> *Id.* at 5-60 – 5-61.

<sup>118</sup> EJ-IWG Guidance, *supra* note 114 at 39 (agencies should not determine that proposed actions will not have disproportionate or adverse impacts on environmental justice populations “solely because the potential impacts of the proposed action or alternative on the general population

population that may enhance the severity of the impacts.<sup>119</sup> That is, disproportionate and adverse effects may occur even if air pollution remains below the NAAQS, and MARAD and the USCG have not met their obligation to analyze those effects on impacted environmental justice communities in the FEIS.<sup>120</sup>

Another very short new section in the FEIS, 3.5.10.2, addresses the “Cumulative impacts of the Alternatives on Environmental Justice.” This new section is one sentence long and suffers the same deficiencies as Section 3.5.10.1, in that MARAD and the USCG presume that the impacts from the different project alternatives, including the no action alternative, will all be the same. As discussed in Sections I and II and Commenters’ previous comments, this is a flawed and illogical assumption. Therefore, MARAD and the USCG have not done an adequate analysis of EJ impacts for the different project alternatives.

### 1. Housing Affordability

As discussed above, the analysis conducted in the SPOT FEIS fails to adequately account for the impacts from the SPOT Project on environmental justice communities in the region. In response to comments submitted in this docket on the SDEIS, the FEIS now includes information on impacts on housing affordability for low-income residents in yet another cursory addition.<sup>121</sup> Previously, the only information provided in the NEPA review for this project was data on general housing availability, with no consideration of the type of housing in the area, and the income needed to live in these property types.

The FEIS now includes data on unmet housing needs for southern Brazoria County, indicating that there are unmet housing needs for entry-level single-family houses and affordable rental housing.<sup>122</sup> The highest need is in affordable rental housing and affordable working-class and lower-income households, which is due to projects like SPOT that create a need for housing “tailored to high-wage transient workers.”<sup>123</sup>

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would be less than significant (as defined by NEPA)”; *see Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, 255 F.Supp.3d 101, 140 (D.D.C. 2017) (finding the Corps’ EJ analysis failed to meet the criteria for a hard look under NEPA when it ignored unique social and economic factors within the EJ community).

<sup>119</sup> CEQ, *Environmental Justice: Guidance Under the National Environmental Policy Act* (1997) 9, 26-27 [Hereinafter: “CEQ Guidance”]; EPA, *Final Guidance for Incorporating Environmental Justice Concerns in EPA’s NEPA Compliance Analyses* (1998), §§ 2.2-2.3 [Hereinafter: “EPA Guidance”]; *see also* EJ-IWG Guidance at 29 & 45-46.

<sup>120</sup> *See* EPA Guidance, *supra* note 119 at § 3.2.2; *see* CEQ Guidance, *supra* note 119 at 10, 25-27; *Friends of Buckingham v. State Air Pollution Control Bd.*, 947 F.3d 68, 86 (4th Cir. 2020) (finding the Board’s state law EJ analysis incomplete when it failed to consider “the potential degree of injury to the local population independent of NAAQS”).

<sup>121</sup> FEIS at 3-399.

<sup>122</sup> *Id.*

<sup>123</sup> *Id.*

Recent data focused on employment trends indicate that demand for affordable rental units number in the high hundreds.<sup>124</sup> This shortage of moderately priced rental housing has a “disproportionate and adverse impact on environmental justice populations who live and work in these communities.”<sup>125</sup> The FEIS, after supplying this information, then summarily concludes that “Project construction would have a direct, beneficial, short-term, and minor impact on short-term lodging and an indirect, adverse, long-term and negligible to minor impact on the supply of permanent housing units in the socioeconomic study area.”<sup>126</sup> The FEIS supports this conclusion by assuming that the “incremental impact of Project construction on the presence of short-term construction workers would be small relative to the overall housing market and the existing supply of short-term lodging.”<sup>127</sup>

This analysis fails to consider the long-term impacts that will arise from the lack of affordable housing. The FEIS fails to consider the additional financial burdens that many will encounter when faced with a lack of affordable housing within their communities, including cost of moving, inability to save money due to increased rent, and additional travel required for commuting if priced out of nearby housing. Concluding that impacts to affordable housing for nearby communities will be “short-term ... and minor” due to the construction timeframe without considering the detrimental long-term effects stemming from this disruption in housing fails to adequately consider the true impacts from the SPOT Project.

#### IV. Conclusion

For the foregoing reasons, we request MARAD and the USCG remedy the errors contained in the FEIS and ensure adequate information and analyses are included prior to issuing a record of decision. Key information and critical analysis are missing from the agencies’ final environmental impact statement, and the agencies do not analyze the full extent of the SPOT Project’s impacts. Without sufficient basis to consider approval, the agencies must deny the SPOT Project.

Thank you for your consideration.

Sincerely,



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<sup>124</sup> *Id.*

<sup>125</sup> *Id.* at 3-441.

<sup>126</sup> *Id.* at 3-402.

<sup>127</sup> *Id.* at 3-441.





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